

ABSTRACT

In a multi-piece solid golf ball comprising a solid  
5 core consisting of a center core and an outer core, an inner  
cover layer and an outer cover layer, the solid core is  
molded from a rubber composition comprising a base rubber  
composed of (a) a polybutadiene having a high cis-1,4 content,  
a minimal 1,2 vinyl content and a viscosity  $\eta$  of up to 600  
10 mPa·s at 25°C as a 5 wt% toluene solution, being synthesized  
using a rare-earth catalyst, in combination with (b) another  
diene rubber, (c) an unsaturated carboxylic acid, (d) an  
organosulfur compound, (e) an inorganic filler, and (f) an  
organic peroxide; and the center core has a specific JIS-C  
15 hardness on its center and a specific JIS-C hardness on its  
surface and the certain difference, the outer core is harder  
than the surface hardness of the center core, the  
cross-sectional hardness of 1 mm outside from the border  
between the center core and the outer core is a specific  
20 range on JIS-C hardness, the surface of the outer core has a  
specific JIS-C hardness, the inner cover layer has a specific  
Shore D hardness; the outer cover layer has a specific Shore  
D hardness; and the outer cover layer has a lower Shore D  
hardness than the inner cover layer. This combination of  
25 features gives the ball a good, soft feel upon impact and an  
excellent spin performance that provides increased distance.